

## REMARKS

Claims 16-31 remain pending in this application. None of the claims have been amended in this response.

Claims 16-31 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Chen* (US Patent No. 6,208,693). The Applicants respectfully traverse the rejection. Favorable reconsideration is respectfully requested.

Specifically, *Chen* does not disclose "segmenting the picture into at least a first picture object and a second picture object, at least one picture block being assigned to at least a part of an edge of the first picture object . . . coding the picture objects with different quality; assigning a quality specification indicating the quality with which a picture object is coded to at least one macroblock contained in the corresponding picture object; and determining the quality by a spatial resolution" as recited in claim 16 and similarly recited in claim 26 and 31.

As was argued previously, *Chen* discloses a technique for implicitly encoding shape information by using a chrome-key color (see Abstract). *Chen* teaches that a picture is segmented in several video objects (FIG. 3), however the disclosure in *Chen* solely focuses on encoding the shape of one video object. As mentioned previously, the present claims require "segmenting the picture into at least a first picture object and a second picture object, at least one picture block being assigned to at least a part of an edge of the first picture object." This means that an entire picture block is at least part of the first picture object if this picture object covers at least a part of the edge of the first picture object.

However, *Chen* teaches to code boundary blocks, which cover an edge of the video object, in a special way, where a boundary block is defined as a block that is assigned to more than one video object (col. 2 line 51 - col. 3 line 11). Accordingly, *Chen* does not teach or suggest assigning a picture block that covers an edge of the first picture object, to the first picture object. Moreover, as it is the main object of *Chen* to provide a shape information coding for boundary blocks, the disclosure teaches away from the present claims, since they recite the processing of a digitized picture without such boundary blocks.

Also, *Chen* discusses in col. 8 lines 48-61 that "a finer quantization for boundary blocks can be specified," and that "VOP\_quant specifies the number of quantization levels for macroblocks inside the object and bound\_quant specifies the number of quantization levels for

boundary macroblocks". Accordingly, this indicates that inside a video object, different quantization levels are occurring.

The Office Action also states in the last sentence of the first paragraph of page 3 of the Non-Final Office Action that "... motivated by *Chen*'s teaching that each object can be quantized with different step sizes", see *Chen* col. 8 lines 48-61. However, Applicants note that this passage only addresses the quantization levels for macroblocks and boundary blocks inside the object. This passage does not give any indication how to use the quantization for several video objects. The present claims recite that the picture objects are coded with different quality and the quality is determined by a spatial resolution. Accordingly, the first and second picture object are coded with different spatial resolution. The disclosure of *Chen* only discloses the coding of a single video object and does not address coding several video objects. Therefore there is no teaching in *Chen* for a skilled person in the art to code several video objects with different quality. Moreover *Chen* does not give any indication that several video objects are coded with different spatial resolution quality.

Regarding the Examiner's Response to arguments, Applicants wish to address the responses in light of the arguments provided above. First, the Response asserts that since *Chen* teaches that a frame is broken into a number of VOPs, official notice was taken that it is inherent in the process of establishing a plurality of VOPs that the VOPs would be coded differently under different special resolutions. The rationale given in the Office Action is that, without the aforementioned coding and special resolution, "*Chen* would not need to separate a frame into many VOPs and [determine quality] by special resolution" (page 2, last 4 lines). This is simply incorrect.

First, if the Office Action is "implying" from *Chen* (i.e., taking official notice) these features, Applicants kindly request that supporting documentation be provided that teaches that once a plurality of VOPs are established, it follows that the VOPs are coded differently under different special resolutions. Official notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known. Official notice without documentary evidence to support an examiner's conclusion is

permissible only in some circumstances. While "official notice" may be relied on, these circumstances should be rare when an application is under final rejection. It is not appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known. For example, assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art. *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420-21 (CCPA 1970) (MPEP 2144.03).

Furthermore, there is nothing in the text cited in the Office Action (col.1, line 62- col. 2, line 2) that even supports the implication. In the preceding paragraph, *Chen* states:

MPEG-4 considers a scene to be a composition of video objects. In most applications, each video object represents a semantically meaningful object. Each uncompressed video object is represented as a set of Y, U, and V components (luminance and chrominance values) plus information about its shape, stored frame after frame in predefined temporal intervals. Each video object is separately coded and transmitted with other objects. As described in MPEG-4, a video object plane (VOP) is an occurrence of a video object at a given time. For a video object, two different VOPs represent snap shots of the same video object at two different times. For simplicity we have often used the term video object to refer to its VOP at a specific instant in time.

And in the cited passage, *Chen* provides:

As an example, FIG. 1(A) illustrates a frame for coding that includes a head and shoulders of a narrator, a logo suspended within the frame and a background. FIGS. 1(B)-1(D) illustrate the frame of FIG. 1(A) broken into three VOPs. By convention, a background generally is assigned VOP $\emptyset$ . The narrator and logo may be assigned VOP1 and VOP2 respectively. Within each VOP, all image data is coded and decoded identically.

(emphasis added). Thus, *Chen* teaches that VOPs are an occurrence of a video object at a given time, and, for a video object, two different VOPs represent snap shots of the same video object at two different times. And within each VOP, all image data is coded and decoded

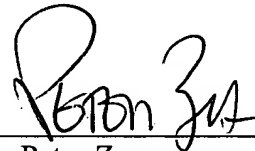
identically. Applicants are at a loss in understanding how this provides justification for implying that different VOPs, through their mere existence, are necessarily coded differently using different special resolutions and why one having ordinary skill in the art would have the suggestion or motivation to do so in light of the teaching in *Chen*.

For at least these reasons, the Applicants submit that the rejection under 35 U.S.C. §103 is improper and should be withdrawn. An early Notice of Allowance is earnestly requested.

If any fees are due in connection with this application as a whole, the Examiner is authorized to deduct such fees from deposit account no. 02-1818. If such a deduction is made, please indicate the attorney docket number (112740-446) on the account statement.

Respectfully submitted,  
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